

1 2. The method of claim 1, wherein the content of each of the plurality of fields of the
2 predicted frame are predicted merely from a corresponding field of the plurality of fields
3 comprising the anchor frame, scaled by a dynamically determined motion vector.

1 3. The method of claim 2, wherein the motion vector is dynamically determined by
2 measuring activity within each of the plurality of fields of the anchor frame.

1 4. The method of claim 1, wherein the predicted frame either precedes or supersedes the
2 anchor frame based, at least in part, on the predicted frame type.

1 5. The method of claim 1, wherein each of the predicted and anchor frames contain
2 interlaced video content or progressive video content.

1 6. The method of claim 5, wherein a first field of the predicted frame and the anchor frame
2 comprises even-field content of the interlaced video content, and a second field of the predicted
3 frame and the anchor frame comprises odd-field content of the interlaced video content.

1 7. The method of claim 5, wherein a first field of the predicted frame comprises even-field
2 content of the interlaced video content and a first field of the anchor frame comprises odd-field
3 content of the interlaced video content.

1 8. The method of claim 5, wherein a first field of the predicted frame comprises odd-field
2 content of the interlaced video content and a first field of the anchor frame comprises even-field
3 content of the interlaced video content.

1 9. The method of claim 1, wherein one or more motion estimation vectors are generated for
2 each of the plurality of fields of the anchor frame by measuring a sum of absolute differences.

1 10. The method of claim 1, wherein even-field interlaced video content of the predicted
2 frame is predicted from even-field interlaced video content of the anchor frame, and odd-field
3 interlaced video content of the predicted frame is predicted from odd-field interlaced video
4 content of the anchor frame.

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1 11. The method of claim 10, wherein the even-field interlaced video content of the predicted
2 frame is predicted from the even-field interlaced video content of the anchor frame and a motion
3 vector, wherein the motion vector is determined by measuring a sum of absolute differences
4 within the even-field interlaced video content of the anchor frame.

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1 12. (Twice Amended) An apparatus comprising:

2 a motion estimation circuit to receive a stream of data comprising at least an anchor
3 frame and a predicted frame, and to utilize even-parity field prediction to predict content of each
4 of a plurality of fields of the predicted frame from corresponding fields of the anchor frame.

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1 13. The apparatus of claim 12, wherein the anchor frame used either precede or supersede the
2 predicted frame depending on predicted frame type.

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1 14. The apparatus of claim 12, wherein the motion estimation circuit measures activity
2 content within each of the plurality of fields of the anchor frame to generate a corresponding
3 plurality of motion vectors.

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1 15. The apparatus of claim 14, wherein the motion estimation circuit predicts content of a
2 first in the predicted frame from content of a corresponding first field in the anchor frame and a
3 first field motion vector, and predicts content of a second field in the predicted frame from a
4 corresponding second field and a second field motion vector.

1 16. The apparatus of claim 12, wherein the predicted frame and anchor frame are comprised
2 of interlaced video content, wherein a first field of each of the predicted frame and the anchor
3 frame contain even-field interlaced video content, while a second field of each of the predicted
4 frame and the anchor frame contain odd-field interlaced video content.

1 17. The apparatus of claim 12, wherein motion estimation circuit generates a motion vector
2 for each of a first and second field of the predicted frame by measuring a sum of absolute activity
3 differences in a corresponding first and second field of the anchor frame.

1 18. (Twice Amended) A storage medium comprising a plurality of executable instructions
2 which, when executed, causes an executing processor to implement a motion estimation function
3 to utilize even-parity field prediction to predict content of each of a plurality of fields of a
4 predicted frame from corresponding fields of one or more anchor frames.

1 19. The storage medium of claim 18, wherein the motion estimation function generates a
2 motion vector associated with each of the plurality of fields of the predicted frame based, at least
3 in part, on a sum of absolute activity differences within each of the plurality of fields of the
4 anchor frame.

1 20. (Twice Amended) A method for performing motion estimation comprising:
2 receiving a stream of data comprising reference frames and non-reference frames; and
3 predicting content of each of a plurality of fields in non-reference frames and select
4 reference frames using information contained in merely corresponding fields of a past or
5 subsequent reference frame.

1 21. A method according to claim 20, wherein the reference frames include I-frame and P-
2 frame types.

1 22. A method according to claim 20, wherein the non-reference frames include B-frames.

1 23. A method according to claim 20, wherein select reference frames include P-frames.

1 24. A method according to claim 20, wherein the content of each of the plurality of fields of
2 the non-reference frame are predicted from a corresponding field of the plurality of fields
3 comprising the reference frame, scaled by a dynamically determined motion vector.

1 25. A method according to claim 20, wherein a first field of the non-reference frame and the
2 reference frame comprises even-field content, while a second field of the reference frame and the
3 non-reference frame comprise odd-field content.

1 26. A method according to claim 25, wherein the first field of the non-reference frame is
2 predicted using merely information from the first field of the reference frame.

1 27. A method according to claim 25, wherein the first field of the non-reference frame is
2 predicted using merely information from the second field of the reference frame.

1 28. A method according to claim 25, wherein the second field of the non-reference frame is
2 predicted using merely information from the first field of the reference frame.